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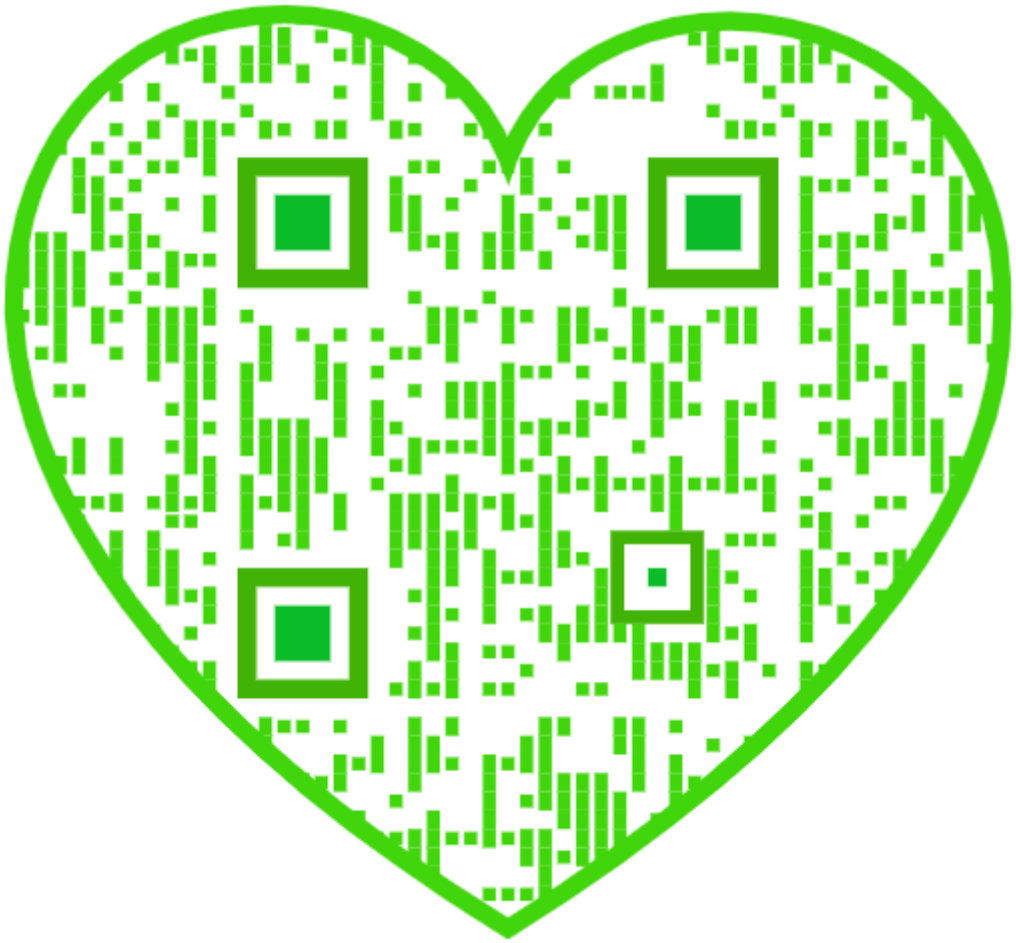

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COFFEE,

234
1794

TEA AND CHOCOLATE:

THEIR INFLUENCE UPON THE HEALTH,

THE INTELLECT,

AND THE MORAL NATURE

OF MAN.

TRANSLATED FROM THE FRENCH OF
A. SAINT-ARROMAN,
Late Resident Surgeon of the Civil Hospitals,
Late Sub-Assistant of the Military Hospital,
and a Member of the Medical Society of Emulation at Toulouse.

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PREFACE.

COFFEE, tea and chocolate are in such esteem amongst all peoples, that of all the ordinary alimentary substances their study is the most highly interesting. They sum up, so to speak, the prophylactic hygiene of the health and life of man. There is no nation, the most barbarous as well as the most civilized, that does not possess a kind of partiality for these liquid aliments, and does not make an enormous consumption of them. Only, all nations do not at the same time equally esteem the three. The Frenchman, the American and the Arab love coffee. The Englishman, the Chinese and the Hindoo idolize tea. The Spaniard, the Italian and the Mexican venerate chocolate. However this diversity of tastes may be, the three substances in question have played a very great part in the political, scientific and commercial world.

If the sugar question has excited violent controversies in legislative assemblies, if the excise and the duties upon salt have occasioned popular seditions; if opium has just been again a subject of hostilities between China and England, coffee, tea and chocolate have changed the customs of certain nations, modified or enlarged the relations of peoples, and even overturned empires. Do not suppose that I am here about to construct fairy tales in the German style, or, that I am willing, for the pleasure of making gigantic comparisons, to change reality, to alter facts and cover science with the variegated cloak of romance. It is medicine, in the purely hygienic point of view; it is history, using the word in its most rigorous acceptation. Thus we know, according to the work of a Spanish author,* that in 1709 the removal of coffee gave rise to a bloody struggle between the people of Holland and Batavia. The Independence of North America, does it not date from a tax that the mother country wished to lay upon tea?†

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* *Bond, Jean della—On the use and abuse of coffee. Page* 19.

† *Dictionary of Medical Sciences, Vol.* 55, *page* 41.

Lastly, Marradon* informs us that in the beginning of the seventeenth century every kind of intercourse was prohibited between the Indian women and the ladies of New Spain. The latter were accused of learning sorcery from the former, who, *being taught by the devil*, committed an infinite number of crimes under the influence of chocolate, of which they were great mistresses.†

In the composition of this work I have desired to present in a single monograph what it is indispensable to know concerning the advantages and disadvantages of the three alimentary substances the most in fashion. The use of them has become so greatly extended in all classes of society; there is generally so little agreement respecting their effects—one pretending that coffee occasions nervous dis-

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* *Dialogue concerning chocolate between a Physician, an Indian, and a Citizen, Page* 58.

† Marradon puts these words into the mouth of a Spanish citizen, who says also that he heard a Jesuit preaching in the church of the City of Mexico relate a number of homicides committed by the Spanish ladies taught by the Indian women, who, by the use of chocolate had correspondence with the devil.

eases, another that tea promotes digestion, but causes pricking sensations in the limbs, a third that coffee is heating and binding; the very persons that are the greatest consumers of them, are, sometimes, so little able to judge of the circumstances that recommend or forbid them, that I have thought I was making an useful book in presenting to the public my serious researches into so important a matter.

In the last three centuries, men of eminence in science have composed volumes upon these very subjects. Upon these very subjects distinguished physicians of different nations had sharp encounters. Do not exclaim; this is still history. Mappus, Marc, in 1693,* Andalon, Andre, in 1703,† Mons. Voseley, and Benjamin, in 1785,‡ wrote at length upon the good and bad effects of coffee. Andre, in 1712,§ Stall, in 1730,‖ and Walldsmid, in 1692,¶ compiled the history of tea, and compared its

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* *De potu cafe.*

† *Il cafe descritto ed esaminato.*

‡ *A Treatise on Tea, etc.*

§ *The Tea of Europe.*

‖ *De veris herbis theæ proprietatibus.*

¶ *De usu et abusu potus theæ.*

effects with those of coffee. Dupont, Michel, in 1661,* Stuble, Henry, in 1662,† and Colmenen, in 1631,‡ taught the origin of chocolate, its composition in India and Spain, with the effects of its use. To these names I might add those of other authors, much more recent, but this would be useless as their opinions are given in the course of this work. It is by going to the sure fountain head, by consulting the writings of praiseworthy men in old and in modern times, that I have hoped to render my work useful and interesting to all. If the consumers of coffee, tea or chocolate are willing to profit by the precepts given in this little work, upon the authority of the best physicians, I shall attain the end that I have proposed to myself, that of destroying many prejudices, and of reducing within just limits, the use, every where so common, of the three substances that I am about to pass in review.

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* *An salubris usus chocolate.*

† *The Indian's nectar.*

‡ *Del chocolate.*

INTRODUCTION.

IF it is useful to know the effects produced upon us by the three substances that we use daily, it is not less curious and even interesting to know precisely, according to the most authentic documents, how they have come down to us, by what means they have thus passed from remote to existing generations, and lastly, what are the changes that political, commercial, scientific and literary revolutions have wrought upon them. With the view of satisfying the demands of curiosity greedy of instruction, as well as the physical and moral wants of individuals, I should approach all the questions relating to the NATURAL, HYGIENIC, ARTISTIC and INDUSTRIAL history of coffee, tea and chocolate; to present all these things compactly, clearly and precisely, I have divided this work into two parts. The first is devoted to historical documents. The second to the precepts of health and hygiene.

PART FIRST.

GENERAL HISTORY

OF

COFFEE, TEA AND CHOCOLATE.

CHAPTER I.

OF THE COFFEE TREE.

IT is generally believed that the Coffee tree comes originally from Arabia Felix. This shrub, which is an evergreen, grows very quickly, and its wood is tough. Its flowers, which diffuse a sweet odour like that of the jessamine, pass away in a few days, and are succeeded by a berry, sometimes round and sometimes oval, composed of a yellowish coloured pulp, which serves to envelope two little beans joined together on the flat side, and each surrounded by a leather-like pulp. These two beans constitute the Coffee.

The cultivation of the Coffee tree requires the greatest care, and this shrub thrives especially in Arabia, the Isle of France, Bourbon, all the Antilles, and in the countries lying between the tropics. In the kingdom of Yemen the largest plantations of Coffee trees are usually half way up the mountains, between the excessive heat of the low ground and the cold of the summit. The roots of the Coffee tree require water, and in the plains they take care to plant them near some trees that may protect their leaves from the burning heat of the sun. In the plantations of Africa, Asia and America, they sow the beans in nurseries unless the quarter should be rainy; in that case they plant them at regular intervals, and the shrub is not transplanted. In St. Domingo, Martinico, and the islands situated above the equator they sow Coffee towards the autumnal equinox; in the Isle of France and Bourbon towards the vernal equinox. They take care to throw into the same field some grains of Indian corn or small peas, which preserve the little Coffee trees from the excessive heat, the hurricanes and the gales which blow violently in these latitudes. The Coffee tree is not in full bearing until its fifth year.

It produces beans in abundance for thirty-five years and in some plantations they have found means of prolonging the existence of the shrubs by lopping them.

The principal Coffee harvest takes place in the beginning of spring in our colonies, and in Arabia Felix, about the districts of Aden and Mocha. The berries are then of a deep red. The Arabs spread pieces of linen under the Coffee trees and then shake the shrubs; all the ripe berries fall, they expose them to the rays of the sun to dry them thoroughly and then remove their envelopes by making them pass through a stone or wooden cylinder. The beans then separate, and they place them again in the sun to secure a complete drying, after which they put them into bags made of rushes, for exportation. In the European colonies the gathering of the Coffee is done by hand. In Martinico, the Isle of France, Bourbon and Guiana, the blacks pick the berries of the Coffee tree one by one: they expose them to the air and the sun to extract their pulp. In countries where it rains much they effect the drying in a stove; this process is the quickest and least expensive. When they have taken off the pulp with a mill they dry the

beans a second time, winnow them, expose them again to the sun and the beans finally lose all their greenness. They pile the bags one upon another, and take care to remove from them all kinds of aromatic plants, whose emanations might change the perfume of the Coffee.

VARIETIES OF COFFEE.

Way to recognise them.

The beans of the Coffee tree are very nearly homogeneous; yet they differ in shape and colour. They are yellowish, oval, convex on one side and flat on the other with a furrow all along them; their taste is mucilaginous and their smell has some resemblance to that of wheat. Their consistence is cartilaginous, elastic and very hard, so that it is almost impossible to pulverize them before they are roasted. In commerce many varieties of Coffee are distinguished, which are easily recognized by some indications that we are about to give.

MOCHA COFFEE.

The beans of Mocha are the most esteemed and the most in request. They are known

by their shape, usually pretty small and almost round; they differ in size and their conformation presents many varieties; some are flattened, others perfectly round, others oblong. Their colour inclines to yellow or greenish. The merchants receive the Mocha in bales made of rushes, covered with the bark of trees, weighing from 145 to 146 *kilogrammes*. The Mocha Coffee is never thoroughly purified; a mixture of dust and little stones is found in the bales. Such are the apparent marks by which the genuine Mocha may be known. Yet the lovers of this delicious bean would be profoundly in error if they thought that the marks were sufficient to decide in an absolute and positive manner. The shape and colour of the beans often lead consumers and merchants astray. It is in fact proved that the old Coffee trees, whose vegetable strength is exhausted, produce only a bean, that being single in the envelope, assumes a round form, in the plantations of America as in those of Arabia Felix. These round beans, which often reach us from the Antilles, are sold in France for the genuine Mocha, and the greater number of consumers permit themselves to be taken in by these deceptive appearances.

What is the true means, the sure and infallible means of recognising beyond a doubt, the berries of the kingdom of Yemen? The shape, colour and size are so many proofs that may be generally admitted; but the true connoisseur does not confine himself to these physical traits; it is especially by the smell and by the taste of the infusion that he recognises the real Mocha, the pure Mocha; its aroma is sweeter and more intense. The talent of tasting is very rare, and before acquiring it in a high degree numerous trials must be made. Brillat Savarin, begins his *Physiology of Taste* with these three gastronomic axioms:

"The beast feeds;

"Man eats;

"The man of sense alone knows how to eat."

We may say in speaking of the tasting of Coffee:

The common run of men take half cups;

Some amateurs know how to take Coffee;

The man of sense alone knows how to take Coffee, and appreciate its poetical aroma.

MARTINICO COFFEE.

The magistrates of Amsterdam sent as a present to Louis XIV a root of Coffee that was

planted with the greatest care in the Garden of Plants. The root was carried by De Clieux to Martinico: this second transplanting succeeded perfectly, and some years afterwards the queen of the Antilles possessed a very great number of Coffee trees: they had even enough to take some of the plants to Guadaloupe, Saint Domingo, and other French colonies.

The Martinico Coffee occupies the first rank after the Mocha berry; all consumers are unanimous upon this point. The grains are larger than those of Yemen, longer and rounded at the two ends; their colour is light green, the shades of which exhibit little difference. They are enveloped in a pellicle of a silvery hue, which is not separated until they have been exposed to the action of fire. Commerce recognises three varieties of Martinico Coffee:

The fine green Martinico,
The fine yellow Martinico,
The ordinary Martinico.

The smell of the Coffee of the Antilles is fresh, and its aroma knows no rival but the Mocha. The taste of the two beans is almost

identical and has much resemblance to that of unground wheat. The Martinico Coffee is exported in coarse linen sacks or in casks.

BOURBON COFFEE.

In 1718, says Raynal in his *Philosophical and Political History of the New World*, the Company of the French Indies established at Paris, sent some plants of Mocha to Bourbon. All the Coffee trees now cultivated in this island are descended from these plants. However, there exists a species or variety which is indigenous to this country; at least the following fact noted in *the Memoirs of the Academy of Sciences of Paris* seems to prove it. The inhabitants of the Isle of Bourbon, it is there mentioned, having seen on board of a French ship returning from Mocha some branches of the common Coffee tree laden with leaves and fruit, immediately remarked that there were trees perfectly similar in their mountains. They went to find some branches of them, the resemblance of which to those that had been brought was found to be exact. Only the Coffee of the island was found to be longer, thinner and greener than that of Arabia.

The beans of Bourbon are of a yellowish colour inclining to green, small, of different shapes, mostly round: they greatly resemble the Mocha. Commerce receives three varieties of Bourbon Coffee, *the fine green Bourbon*, the perfume of which is very agreeable, the berries small and round and their colour almost green; *the fine yellow Bourbon*, which differs from the first only in its yellowish colour; and *the ordinary Bourbon* (inferior quality) of which the perfume is less decided and less agreeable and the berries are larger, irregular, sometimes yellow and sometimes green. For about the last fifteen years, commerce has received from Bourbon some Coffee that has the smell of tea: botanists attribute this peculiarity to the vicinity of the country where tea grows in abundance. Consumers should reject another variety of the Bourbon Coffee known by the name of *Marron Coffee:* its quality is very inferior: it is principally known by its shape, rounded at one end and drawn out at the other and by the pellicles inherent to the berry. The Bourbon Coffee arrives in France in double bags of rushes, whose weight varies from twenty-five to fifty *kilogrammes.*

COFFEE OF GUADALOUPE AND CAYENNE.

The beans of Guadaloupe differ little in shape from those of Martinico: they are oblong, shining, entirely stripped of their pellicles, and of a leaden green.

It is easy to recognise the Coffee of Cayenne by its large flattened beans, almost entirely covered by their pellicles, which give them a silvery colour. Their characteristic mark is a dull blackish green; this quality is inferior to the Coffee of Martinico. The exports of Guadaloupe and Cayenne are made in casks or in bags.

HAÏTI (SAINT DOMINGO) COFFEE.

The first plants of Coffee were taken from Martinico to Saint Domingo (now the Republic of Haïti.) This variety is in little request in commerce, its taste is slightly acid: the beans terminate in a point, are larger and longer than those of Martinico, of very irregular shapes, and they are sometimes almost entirely covered with pellicles of a reddish colour. The Haïtians do not take pains to purify their Coffee thoroughly: black beans or little stones are always found in the bales.

COFFEE OF BRAZIL.

The Coffee of Brazil greatly resembles the Mocha and the ordinary Bourbon; one might say that the small beans came from Arabia and the large from the French colony; they are of a dark yellow; the yellow pellicle is shining and very light. Rio Janiero produces a variety of Coffee whose beans, larger and not very long, are yellowish green; their aroma is very striking.

COFFEE OF MANILLA AND JAMAICA.

The Coffee of Manilla is little known in commerce; its beans are covered with pellicles, gray inclining to greenish. The Manilla has little aroma; it is exported in double mats of rushes.

The Coffee of Jamaica has a pretty agreeable smell, it does not want aroma. The beans of a bright green are odd-shaped and but rarely covered with pellicles. They are brought in hempen bags.

COFFEE OF CUBA AND PORTO-RICO.

The colour of Cuba varies from pale green to yellowish green. Its beans are small, covered with a reddish pellicle and very clean;

some beans are round like those of Mocha, because they come from old Coffee trees. The Cuba is brought in casks or bags made of the bark of trees.

The Coffee of the Island of Ceylon is of middling quality; its beans have shapes infinitely varied, of a deep greenish or pale yellow colour.

The Coffee of Porto-Rico has much resemblance to that of Martinico, although of inferior quality; its beans are shorter, less covered with pellicle and slightly curved.

COFFEE OF JAVA AND SUMATRA.

The Coffee of Java has a strong perfume; its beans of a yellow brown, sometimes pale yellow or greenish, are long and hard; they all have their pellicles on. The Coffee of Java is usually badly purified; black grains, little stones and bits of wood are found in the bags made of double Grenny linen.

The taste of the Coffee of Sumatra is very strikingly bitter. The beans, oblong shaped, a little flattened, covered with the pellicles, are of yellow, reddish, brown and black colours. The Sumatra is exported in plain rush mats.

Such are the principal varieties of coffee recognised by naturalists, consumers and merchants; they all have a common mother, the berry of Mocha; but they have entirely degenerated, and if they preserve a portion of the maternal aroma, it cannot be denied that the different processes of cultivation tend every year to modify the primitive character. The coffee of the districts of Aden and Mocha has lost none of its superiority: in our days, as in the sixteenth century, it holds the first rank in the esteem of connoisseurs. Some naturalists have tried to discover if this result ought to be exclusively ascribed to the soil of Arabia or the climate; their observations have resulted only in some hypotheses more or less probable; but it is certain that the cupidity of the European planters has given the severest blow to the coffee transplanted to the Antilles, Java, Sumatra, Manilla, Guyana, Bourbon, Porto-Rico and Rio Janiero. In fact what is the sole and constant aim of every planter? To increase the size and the weight of the bean, which can only be obtained at the expense of the quality. The Arabs wait, to gather the harvest, until the beans of the coffee tree have reached the highest degree

of maturity. The planters of America, on the contrary, gather them too soon, so that the beans are badly dried, and the aroma cannot attain the degree of development that constitutes the superior qualities; thus it is that the coffee of our colonies is softer, more spongy and less dry than the Mocha; it easily becomes impregnated with the emanations of substances that are near it, and it often happens that the bags of Martinico, Bourbon and Guyana exhale a strong smell of cinnamon, pepper, cloves and other aromatics.

By what signs can the consumer recognise good Coffee?

We have analyzed in the preceding paragraphs the distinctive and physical characteristics of the different varieties of Coffee; we have gone to the best sources of information, and we believe that we have omitted nothing of importance. But besides the physical characteristics peculiar to each variety of the species, there are some general ones that are subject to a few modifications. To sum up all that we have said concerning the Mocha and the colonial beans, we will confine ourselves to giving some advice to consumers; we do

not speak of the connoisseurs, these perhaps know more about it than we do; they have for themselves a long experience, the surest of all guides; their palate has long since become acquainted with the aroma of Arabia Felix, and they have no need of a particular description to recognise their well beloved liquor. We write these lines for the great bulk of consumers, and we hope that every one will therein find profit and instruction.

As a general rule, the consumer or the merchant who buys coffee should ascertain that it is of the year's crop, hard, dry and yielding with difficulty to the pressure of the teeth. If it is sonorous, whole, clean, of middling size, scented, in smooth grains and free from all extraneous smell, we should no longer doubt its good quality, and the most exacting connoisseur may lay in an ample supply of it.

INTRODUCTION OF COFFEE INTO EUROPE.

The coffee tree* comes originally from Upper Ethiopia, where it has been known from

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* Raynal, *Philosophical and Political History of the New World.*

time immemorial, and where it is still cultivated with success. Some authors pretend that the fruit of this shrub was appreciated by the people of antiquity, and that the *Nepenthes* served by Helen to Telemachus was nothing else than Coffee.*

It is the Orientals that have transmitted the use of it to us. Some say that we owe the first trial of it to the vigilance of the Superior of a monastery, who wishing to draw his monks from the sleep that kept them drowsy at night to the offices of the choir, made them drink the infusion of it upon the relation of the effects that this fruit produced in the goats that had eaten it: others pretend that a Mollah, named Chadely, was the first Arab that took coffee, with a view to preserve himself from a continual drowsiness that prevented his attending properly to his nocturnal prayers. The dervishes imitated him. Their example led away the men of the law. It was soon perceived that this beverage enlivened the mind and dissipated the oppressions of the stomach. Those even who had no necessity to keep themselves

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* Homer, Odyssey.

awake adopted it. From the borders of the Red Sea, the use of it passed to Medina, to Mecca, and through the pilgrims into all the Mahometan countries. Lastly, we read in a manuscript which is in the Royal Library,* that coffee, although originally from Arabia Felix was in use in Africa and Persia quite a long time before the Arabs had made a drink of it. Towards the middle of the fifteenth century, the Mufti of Aden, a city of Arabia, traveling in Persia, saw this liquor used there, and on his return, he made it known in his own country. From Aden its use spread into all the place subject to the law of Mahomet.

In many cities of these countries they thought of establishing public houses wherein coffee was distributed. In Persia, these houses became, as with us, a respectable retreat for idle persons, and a place of relaxation for persons engaged in business. The politicians talked of the news there, the poets there recited their verses and the mollahs their sermons. At Constantinople things did not go on so

* There is in the Royal Library a manuscript upon Coffee that is ascribed to one of the ancestors of Abd-el-kader.

quietly: they had no sooner opened the coffee-houses than they were eagerly frequented. Owing to the representations of the Mufti, under Amurat III, the government had these public places closed, and tolerated the use of this liquor only in the interior of families. A decided inclination triumphed over this severity; they contrived to drink coffee publicly, and the places where it was served out were multiplied.

During the war of Candia and under the minority of Mahomet IV, the Grand Vizier Koproli suppressed them again: but this precaution was as useless as the preceding.

In the beginning of the sixteenth century coffee in like manner occasiond troubles at Cairo. In the year 1523 or 930 of the hegira Abdalla-Ibrahim, the head of the law, preached loudly against this beverage from his mosque of Hassassamie; but the Sheik-el-Belek (the commander of the place) assembled all his doctors, and having patiently listened to a long discussion, he had coffee served to every body, and broke up the sitting without saying a single word. This measure restored tranquillity. Thus it is that the use of coffee universally adopted in the east has perpetuated itself there

in spite of the violence of the laws and the authority of religion that combined together to proscribe it. The Turks have a particular steward whom they call *cavaghi*, that is to say, Coffee-officer, and in the seraglio there are many *cavaghis;* each of them presides over twenty or thirty *battaghis*, entrusted with preparing this agreeable liquor.

Coffee had begun to be held in esteem at Constantinople during the reign of Soliman the Great, in 1551. It was about a century afterwards that it was adopted at London and Paris; but its introduction into England met with, under Charles II, the same difficulties that it had encountered in Turkey, under Amurat and Mahomet. They found that the coffee-houses became places of meeting for too great numbers, and they suppressed them in 1675, as *seminaries of sedition.* In France they were more moderate; these public places were peaceably established and kept up. In 1669, Soliman-Aga, the Embassador from the Sublime Porte, made a great number of persons taste coffee, who after his departure continued to make use of it. The first public coffee-saloon was constructed at the Saint Germain market by an Armenian, in 1672.

Afterwards he established himself upon the *Quai de l'Ecole*, where a shop is still to be seen at the corner of the *Rue de la Monnai*. The saloon was frequented only by the knights of Malta and strangers. Having left Paris to go to London he had many successors. A cup of coffee was sold at this period for two sous and five deniers. Lastly, a certain Stephen of Aleppo was the first who constructed at Paris a saloon adorned with glasses and marble tables; it was in the *Rue-Saint-Andreé-des-Arcs*, opposite the St. Michael bridge.

McCullough thus describes the introduction of Coffee in London, and the difficulties that the Dutch experienced in procuring the first plants of the coffee tree.

"The first of the establishments to which the name of Coffee-houses was given, was opened in London in 1652. A merchant, named Edwards, who traded with Turkey, having brought some bags of Coffee from the Levant and brought with him a Greek servant accustomed to make it, soon saw his house beseiged by a crowd of people, who, under the pretence of visiting him came to taste this new liquor. To satisfy his friends, who daily became more numerous, and at the same time

to free himself from the embarrassment that they caused him, he allowed his servant to establish himself where he pleased, to make coffee and sell it to the public. In consequence of this permission, the Greek opened a coffee-house at the very spot where *the Virginia Coffee-house* now is. The celebrated coffee-house of Garraway, where so many sales by auction are held, was the first that was opened after the great fire of 1666. By a proclamation, published in 1675, Charles II attempted to suppress the coffee-houses, under pretence that they served as places of meeting for the disaffected, who invented and circulated false and calumnious reports to defame the government of the king and disturb the repose of the nation. The twelve Judges having been consulted respecting the legality of this measure, declared that the retailing of the decoction of coffee might be an innocent trade; but as it was made use of to nourish sedition, to propagate lies and calumniate great personages, this might be also an injurious thing, and that it was proper to prohibit it.

"The Arab princes, to secure to themselves the monopoly of coffee, had prohibited under pain of death the exportation of a single coffee

plant from the country; a prohibition, moreover, difficult enough to violate, seeing that this plant is only found within twenty-five leagues of Mocha, the only port where European vessels were allowed to touch. It is even said that the Arabs pushed their precaution so far as to render the seeds of the coffee tree barren by means of a certain degree of roasting that they made them undergo before handing them over to commerce. In spite of all their efforts the Dutch succeeded either in procuring some plants or some grains that had preserved their fertility, and naturalized the coffee tree in the environs of Sumatra."

A people naturally lively and trifling, says Mons. Garnier,* must have quickly adopted the use of a drink so fit to keep up their natural gaiety. It was at first an object of fancy or luxury, and was not long in becoming a necessary, particularly for the rich. The taste for it spread from one to another throughout all ranks and all countries; the inhabitants of the North became used to it; they preferred this drink to their liquors. Finally all Europe

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* Dictionary of Commerce and Merchandise.

took coffee. It was impossible that a taste, become so general, should not excite a desire among Europeans to possess the tree that produced this precious grain. The maritime powers of this part of the world had colonies situated between the tropics; they thought of transplanting the coffee tree to them. It was to be sought for in its native country, that is to say, Arabia, for it was from this country that all the coffee came that was then consumed in Europe. The Dutch succeeded in it, and were the first to raise coffee in their great colony of Batavia.

We have elsewhere related how the coffee tree was transplanted to Martinico, and the other islands belonging to France.

We have now to speak of the manner of preparing coffee. We cannot do better than to quote the judicious observations of Mons. Garnier, since they seem to us based upon a long experience and profound studies.

COFFEE A LA SULTANA.

The Arabs dry up the pulp to make use of it in a tea-like drink; it is said that this is an article of commerce. This drink is agreeable and refreshing enough; it is what they call

Coffee *à la Sultana.* This name also serves to denote, in Europe, the slight decoction of unroasted grains, which, taken with a little sugar, strengthens the stomach and restores the appetite. In some parts of Southern Asia they soak the pulp in casks full of water, and obtain from it a kind of wine, which furnishes, by distillation, a very agreeable spirituous liquor. In the Antilles they make no use of it.

THE ROASTING OF COFFEE.

As to the bean, every one knows that it undergoes roasting, that it is ground to convert it into powder, and that warm water is poured upon this powder to obtain from it an infusion that serves as an *intellectual drink;* an expression that is now consecrated.

THE PREPARATION OF COFFEE.

The roasting destroys the crudity of the bean and drives off the watery part of its mucilage, it facilitates the action of the mill and developes that combination of essences whose union constitutes what is called *the flavour;* but too much heat destroys the principles that ought to be preserved, and substitutes others for them, bitter and astringent, that have no-

thing in common with the ambrosia that the connoisseur tastes with such delight. On the other hand, too little heat conceals *the flavour*, and preserves a little of the greenness; coffee prepared with this powder would oppress the stomach. There is then a point that cannot be pointed out, but which experience teaches us to seize. It is usually by the smell which embalms the surrounding atmosphere, that one is apprized that the action of caloric should be checked. It is estimated that a good roasting ought to carry off only from sixteen to twenty per cent. The roasting is usually done in an iron cylinder. Glazed earthenware vessels may become injurious on account of the enamel which scales off and mixes with the coffee. When the roasting is done, some persons are in the habit of smothering the coffee with a napkin or paper. It is a wrong way; the heat is kept up and all the oils disappear. A better way is to pour the coffee upon a stone, or into a perfectly cold vessel, that the escape of the aroma may be checked as soon as possible. Coffee should not be ground before it is perfectly cold, for it would glue up the nut of the mill. When an infusion is prepared a too great heat should also be

avoided, for then it dissolves the resinous, sour and bitter principle; besides, the great quantity of vapour that is formed draws off all the volatile parts, and dissipates the perfume in such request with amateurs. Persons are, however, in the habit of pouring the water quite boiling into their coffee-pot; but the coats of the vessel soon absorb the excess of caloric. When there is time it is sufficient to perform only the straining with cold water, and to warm the solution before drinking it; it even seems that this kind of simmering, as they say, unites the savoury principles; so it is quite improper to pour warm water upon the substance remaining after straining when it is desired to deprive it of all that it has been able to retain. The solution that is obtained is *deep colored*, but it has a detestable taste.

MANNER OF PRESERVING THE FLAVOUR OF COFFEE.

That *the flavour* may not be lost, care should be taken not to roast and grind the coffee until a few hours before preparing the infusion. However, they have of late tried to envelope the roasted berries in a little layer of sugar to prevent the evaporation of the per-

fume: this process seems to have good results, but it is not yet generally in use.

ESSENCE OF MOCHA.

Some distillers prepare a concentrated infusion, and sell it under the genuine name of Essence of Mocha: this preparation has its use in traveling, and in the country; but it has not yet attained the approbation of the real connoisseur.

OF COFFEE POTS.

Coffee pots of silver, tin or earthenware, are generally used for making the infusion of coffee. Rich persons drink it in silver: to others we recommend earthenware Coffee-pots. The tin generally communicates a taste of ink, owing to a small quantity of iron that the tannin of the coffee dissolves. For some years past the Coffee-pots *à la Dubelloy* have been generally adopted.

COFFEE TRADE, EXPORTATIONS.

Here are very nearly the quantities of Coffee exported annually from the countries that produce it.

From Mocha, Hodeida, and other parts of Arabia, 10,000 tons.

From Java, 18,000 tons.

From Sumatra, and other parts of the Indian Archipelago, 8,000.

From Brazil, and the former Spanish possession of South America, 42,000.

From St. Domingo, 20,000.

From Cuba and Porto-Rico, 25,000.

From the English colonies in the West Indies, 11,000.

From the former Dutch colonies, 5,000.

From the Island of Bourbon, and the other French colonies, 8,000.

CONSUMPTION OF COFFEE IN THE DIFFERENT COUNTRIES OF THE KNOWN WORLD.

This consumption is thus estimated:

Great Britain, 11,500 tons.

Holland and Belgium, 40,500.

Germany, and the countries bordering on the Baltic, 152,000.

France, Spain, Italy, Turkey in Europe, the Levant, etc., 35,000.

Austria, 20,000.

DUTIES LAID UPON COFFEE.

The duties upon coffee in France are 50 francs per hundred kilogrammes upon that of Bourbon, 60 francs upon that of French Guiana, Martinico and Guadaloupe, 78 francs upon the coffees of India, and those coming from all the countries lying to the west of Cape Horn, and elsewhere out of Europe, 100 francs upon the coffees of the emporiums, and 105 francs upon those that arrive in foreign vessels, or by land. The export duties are 25 centimes.

PRICE OF COFFEE.

Mocha, Martinico, and fine green Guadaloupe, are sold at Havre from 1 franc 50 centimes to 1 franc 55 centimes the half kilogramme. Bourbon, 1 franc 40 centimes; Hayti 1 franc 30 centimes, and the others in proportion.

THE CONSUMPTION IN FRANCE.

The consumption in France, of late years, has been estimated at 10,893,721 kilogrammes, which have been sold for 10,821,360 francs, official price.

Duties laid, 10,224,581 francs.

THE COFFEE-HOUSES OF PARIS.

The history of the Coffee-houses of Paris goes no further back than the year 1669. We have already said that Soliman Aga, Embassador from the Emperor of Turkey, made the lords and ladies taste coffee, who went to see him at his hotel. The taste for this drink spread rapidly. Towards the close of the year 1669, an Armenian, named Pascal, set up a shop in the market of St. Germain, where he publicly sold coffee. After the market, he established himself in a little room on the *Quai de l'Ecole*, at the corner of the *Rue de la Monnaie*. He had a repute that it took his successors a long time to obtain; the knights of Malta, who had dwelt in the East, travelers and officers gave so great a reputation to his establishment that it was sold very dear, when he left Paris to go open another Coffee-house in London; he had numerous successors, who all did an excellent business. One named Stephen of Aleppo finally built in the *Rue St. Andrè des Arcs*, a room magnificent for the time, which he decorated with glasses and marble tables.

The advantages that France presented in the Coffee trade attracted many strangers, who

founded numerous establishments. The celebrated Procope, a Sicilian by birth, after having sold Coffee for a long time at the St. Germain market, established himself in the year 1689, in the *Rue des Fossés-St.-Germain*. The French theatre had just been removed thither, which was previously in the *Rue Guénégaud*. The vicinity of the theatre made Procope's fortune: the dramatic authors, the actors and actresses frequented his Coffee-house, which became, and for a long time continued, the rendezvous of men of letters. They discussed questions of literature, and read new pieces there. Boileau, Lafontaine, Moliere, and subsequently Voltaire, immortalized the Procope Coffee-house, where a table of J. J. Rousseau and the encyclopedists is still shown.

The Coffee-house of the Widow Laurent at the corner of the *Rue Guénégaud* rivaled that of the Sicilian Procope: it was frequented by second and third rate poets and literati. J. B. Rousseau, Montmaur, Sauchette, and Lamothe were in the habit of going there daily. J. B. Rousseau, who, as he says in his memoires, *had besotted himself in the society of the Widow Laurent's Coffee-house*, there composed, it is said, the celebrated couplets

against the usual visiters, Lamothe, Crebillon and Saurin, that occasioned his banishment by the Parliament of Paris in 1712. In the reign of Louis XV, the Coffee-house of *the Regency* was established near the Palais Royal, which was for a long time frequented by the chess-players. The annals of this Coffee-house would be most curious if any one had taken the pains to note the disasters that befel the players. What dramatic turns of fortune! But the chronicles of these establishments rarely survive the generation that frequents them, and to find some isolated facts, we must search for them laboriously in contemporary memoirs, or inquire for them of the traditions of the old accustomed visiters.

WHEN DID COFFEE-HOUSES SPREAD GREATLY IN FRANCE?

We have already related the persecutions that the first persons who established Coffee-houses in England had to undergo. In France the authorities conducted themselves with more wisdom and moderation. The lemonade venders enjoyed ample liberty; the persons who frequented their establishments were not in the least disturbed.

Some writers of memoirs attribute this toleration to the dislike with which coffee was at first received. Every one knows that Louis XV did not like coffee; that the fashionable ladies, and at their head the witty Sevigné declared themselves the bitter enemies of coffee.

"Racine and coffee will pass away," wrote this lady in a confidential letter.

The prediction is not on the brink of fulfilment: our great poet Racine

Is still young in glory and immortality.

Coffee invaded all classes of society; rich and poor took coffee. It is at first surprising that coffee, which so readily obtained the honours of repute at London, should have found opponents in France. The astonishment will gradually diminish if one casts a retrospective glance upon French society towards the close of the seventeenth and beginning of the eighteenth century. Our worthy grandfathers went to the tavern: young lords, poets and men of learning did not blush to enter a tavern. The young gentlemen very often found themselves overcome with wine. Boileau sometimes passed a whole day at a

tavern, Chapelle sacrificed immoderately to Bacchus, and we read in *Moliere's Memoirs* that a great number of his friends made him so completely tipsy in his country-house at Auteuil that he wished to go throw himself into the Seine. This history is too well known to make it necessary to relate it here.

It is settled that coffee was received with disfavor in France under Louis XIV, and during the first years of the reign of Louis XV. But this prince, to oblige Madame Dubarry, easily accustomed himself to this drink, and it is said that he did not disdain to prepare his coffee secretly in his apartments in concert with his mistress.

"The king smiles, the courtiers laugh out loud," says an old proverb.

. . . . . Louis XV professing to love coffee, every body was passionately fond of coffee, which at last triumphed over the national antipathy. We say antipathy, because the French, accustomed to drink excellent wine at a cheap rate, showed themselves for a long time hostile to a liquor that threatened to dethrone the old Bacchus of the table. Some infatuated persons persisted in haunting the taverns in preference to the Coffee-houses, and fuddled them-

selves from a spirit of nationality. Perhaps too, the French character, strongly inclined to gaiety and enthusiasm, felt at first some repugnance to giving the rights of citizenship to a drink that seemed at first inferior to Burgundy and Champagne.

However that may be, coffee ended by triumphing over the national antipathy and the prejudices of some old gentlemen who had sworn to die martyrs to the worship of the bottle. Dating from the end of the reign of Louis XV, the number of Coffee-houses rapidly increased in Paris and the provinces, and from that time the perfume of the berry of Arabia embalms the table of the rich and the poor, and concludes our repasts poetically.

CHAPTER II.

OF TEA.

WE speak in the hygienic part of our pamphlet of the properties of tea, and of its influence on the health and the moral nature of man. We have, then, only to make here some general observations foreign to medicine and hygiene.

IMPORTATION OF TEA INTO EUROPE.

In Chinese books, printed many centuries before the Christian era, we find whole poems consecrated to the praise of tea. The first importation of this perfumed leaf into Europe dates from the commencement of the seventeenth century. In 1666 Lord Harrington and Ossory procured a considerable quantity of it. This drink soon became in fashion in the countries of the North. In France tea was at first used only as a medicine; however, towards the beginning of the last century some persons

made it fashionable. The war of the Revolution and of the Empire having interrupted our commercial relations with India and China, we easily forgot tea, which was not talked of until some years after the first restoration. Since that time the use of it has spread, but with us it will never enjoy a great reputation.

SMALL CONSUMPTION OF TEA IN FRANCE.

Our neighbours over the sea, and the people of the North in general, console themselves for the absence of wine with tea; they addict themselves excessively to the use of this drink, which has become indispensable to them, because under their cloudy skies they need some stimulus. In France, on the contrary, wine and the alcoholic liquors will always contend with advantage against the infusion of the Chinese leaves. The best tea of the Celestial Empire cannot bear a comparison with Bordeaux, Burgundy and Champagne. Let any one attempt to import tea for the inhabitants of Burgundy, Guyenne and Languedoc; they will answer that nature has given them the first of all drinks in abundance, and that a glass of wine is worth more to them than a pot of tea, so necessary to northern people.

WHY TEA IS SO GREATLY IN VOGUE AMONG THE ENGLISH.

England has no other wine than that which she derives from the Cape of Good Hope. The price of this drink becomes exorbitant when she buys it in France, Spain and Portugal. The British government having it always in view never to be tributary to neighboring nations, has given great importance to the trade in tea. The great and the common people have unanimously adopted the infusion of the Chinese leaves, which with them fills the place of wine, brandy, and other spirits.

TEA USEFUL TO THE ENGLISH, INJURIOUS TO THE FRENCH.

In analysing the chemical properties of tea, we have said that we should judge of its effect by the impression that it produces on the organs. This impression is always in proportion to the sensibility of the person that feels it: it is for this reason that in certain persons tea occasions violent movements, and excites disturbance in the functions of the organism, whilst in others it does not make a sensible impression.

Starting from this principle, it will not be difficult for us to demonstrate that the frequent use of tea, beneficial to the English, is most commonly injurious to the French. This is owing to the temperaments of the individuals of the two nations.

The Englishman, living in a foggy and moist atmosphere, and in a cold climate, is naturally a glutton, and devours at each of his meals an enormous quantity of meat. He needs then a strong stimulus to come to the assistance of his stomach during the work of digestion.

The Frenchman lives in a temperate climate, rather hot than cold; he is naturally sober, and vegetables form the principal basis of his nourishment; digestion is performed without difficulty, especially being hastened by the use of wine.

The Englishman is naturally lymphatic; stuffed with beefsteaks and plum-pudding, he remains for two hours almost annihilated by the painful elaboration of the stomach; one might call him a boa quasi-asphyxied by a gazelle that he has just swallowed. Tea alone can draw him from this lethargic sleep; it

gives him gaiety, energy, warmth and loquacity.

The Frenchman, of a nervous constitution, most usually experiences only fatal consequences from the use of tea, which is almost always injurious to him. The French ladies, especially, should avoid this drink, which occasions them painful spasms, whilst it merely shakes off moderately the indolence of the London ladies.

To sum up, we think that tea will never obtain, among us, regular letters of naturalization. The climate and the productions of Nature will never cease to contend against it.

Let us bless heaven for the part allotted to us! To us, wine, to the English, tea.

To us, the sun, fine weather and the most precious gifts of nature.

To the English, fogs, coal, plumb-pudding, the spleen and consumptive diseases.

Tea then is injurious to the French; it ought to be proscribed as an anti-national drink, except in cases of indigestion, which are more and more rare in France; we eat to live, the English live to eat; let us then leave them their tea, their favorite drink.

CHAPTER III.

OF CHOCOLATE.

IN giving only the history of chocolate under the three phases above announced, we should run the risk of seeming incomplete if we did not make haste to say, that according to the historical documents of a Spanish work, published in 1743, this paste has played a great part in the celebration of divine service by the Spanish clergy. Thus, according to the account of Réné Moreau, towards the commencement of the seventeenth century, *a Spanish priest, saying mass on board a vessel to thank God for the prosperous voyage that the crew had had, thought he might allow himself to swallow a cup of chocolate without any irreverence to the Deity, at the moment of consecration, because he felt a weakness at his stomach.* According to the same author, the canons of the chapter had in his time *the same comfortable habit in chaunting the service in*

the morning. We have reason to believe that the members of the present clergy have not inherited this irreligious practice in Spain any more than elsewhere.

In the third chapter of the second part of our work we have carefully given the composition of the different chocolates as we have them from the Italian, Spanish and French factories. Our readers will there read with interest the composition of chocolate among the Indians, and the effects upon the body of the different ingredients of which they make this paste, which was held in so great veneration among this people for want of something better. Marchina informs us that the chocolate of the Indies is composed of

Cacao, - -	10 pounds.
White Sugar, -	2 "
Cinnamon, - -	2 ounces.
Mexican Pepper, -	14 grains.
Cloves, - -	½ ounce.
Anniseed, - -	2 reals.

Some add to this almonds, hazle-nuts and orange flower water. The cloves were not used by those who were considered good manufacturers, *understanding perfectly the way to make this drink, owing, perhaps, to this cir-*

cumstance, that cloves are binding to the belly, although they have the property of correcting bad breath and an ill smell of the mouth, as has been observed by a learned personage in these verses:

"Cloves make good the breath,
"Bind the running belly,
"And go comforting the stomach,
"When the food gives it pain."

To the anniseed they ascribe the property of modifying the effects of the cacao, which they say is cold. The anniseed, being reputed warm in the highest degree, was employed against the diseases called cold.

"Anniseed by sovereign virtue,
"Comforts the weary limbs;
"It drives away accumulated ills
"By the sole effect of its grain.
"The spleen and the ill-tasting mouth,
"The gross focus of mutinous winds,
"The womb and the intestines,
"And other parts affected,
"Find themselves relieved by it."

The chocolate made with hazelnuts or almonds was generally more esteemed than that made with Indian corn, provided, however, that these fruits were properly prepared.

" Almonds taken by measure
" Afford a sweet and wholesome food;
" But taken when they are not ripe,
" Occasion nothing but torment."

A tonic effect upon the stomach and bowels is still ascribed to hazelnuts, as well as hindering the vapours of the digestive tube from mounting to the head:

" The hazelnut engenders bile,
" It keeps the belly shut:
" When roasted, it obstructs
" And represses the pent-up air,
" That it may not mount up to the head
" And occasion some tempest therein."

This is the reason, says Marchena, (the Spanish author translated by Moreau, from whom we borrow these documents and these verses, so curious in form and ideas) *that hazelnuts are useful to those who have vitosites* (winds) *and fumes that mount from the hypochondres to the brain, where they occasion disturbed dreams and disagreeable imaginations.*

Chocolate made with Indian corn is considered unwholesome, on account of the windy properties of this grain.

" Indian corn in drying occasions melancholy,
" Applied to the body, freezes and mortifies it."

The Indians disapprove less of cinnamon; so there are few alimentative substances into which it is not put in pretty large quantities. There are in these verses the virtues that they ascribe to it:

"Cinnamon is good for the urine,
" Strengthening the reins that produce it;
" It brightens the eyes, and averts the destruction
" Of violent poison."

René Moreau informs us that the Indians had in his time many ways of taking chocolate. Their most generally adopted method was to mix it with *atolle*, a kind of pap of Indian meal; they further diluted it with sugar and water, in a cup of xarica, or coco, called técomaté, and swallowed it all hot. Lastly, after having let it dissolve in water, they added some broth to it, then put it over the fire until it thoroughly boiled, and then, when it had sufficiently cooled, they drank it as usual.

The Indians ascribe a refreshing virtue to chocolate. On feast days, and in the midst of their rejoicings and public games, it is with chocolate that they moderate the internal fire of their heated organs.—"When I went to visit the sick who called for medical aid," says

René Moreau, "if I asked for a drink to quench the thirst and dryness of my throat, the relations or friends of the family always offered me a cup of chocolate, which accomplished the task of quenching thirst and cheering one up marvellously well."

PART SECOND.

CHAPTER I.

OF COFFEE IN THE HYGIENIC POINT OF VIEW.

THE use of coffee is now so extensive throughout all classes, with the aristocrat as with the proletary, with the artizan as with the annuitant, that it is indispensable to know

1st. Its history in the hygienic point of view;
2ndly. Its action upon man in health;
3rdly. Its efficacy upon man in sickness;
4thly. Its effect upon different temperaments;
5thly. Its influence upon the moral nature.

1st. HISTORY OF COFFEE. In the arabic language the word coffee signifies *strength, vigour;* according to Jussieu it derives its origin from *caouche*, which is the name given by the Turks to the same drink. In 1652,

there was in London but one man, a Greek by birth, that carried on the art of preparing Coffee. In 1669, its use was introduced into France by Soliman Aga, Ambassador of the Ottoman Porte. The grains, and the manner of preparing it were known before the plant itself. The first coffee tree that appeared at the Garden of Plants in Paris was given in 1713, by Besson, Lieutenant General of Artillery, to Louis XIV. In 1720, a young coffee tree, raised in the green-house of the Garden of Plants, was transplanted to the Antilles by Declieux, who, during his passage, deprived himself of a part of his water to water the plant that he carried. It is to the pains of this traveler that we owe the cultivation of coffee at Martinico, St. Domingo, Guadaloupe and the other American islands.—The coffee tree is about twenty feet high, its leaves are oval, green and shining, and its flowers white, bordering upon yellow, diffuse one of the most agreeable odours. The berries, or fruit, are covered with two envelopes. In the East they make a drink of them, held in great esteem, known by the name of coffee *à la Sultana*. In Europe they use the peeled grains exclusively. Coffee, as commerce supplies us

with it, furnishes on analysis an aromatic principle, a concrete essential oil, some mucilage, undoubtedly proceeding from the action of warm water upon the fecula, some resin, a very small quantity of albumen, an extractive coloring matter, and an acid, *gallic*, according to Mons. Cadet, and *kinic*, according to Dr. Grindel.—Like all transplanted trees, the coffee tree has more or less lost its primitive virtues. Of the many qualities of coffee, the most esteemed is that sent to us from the city of Mocha, in the environs of which it is best naturalized. According to Mons. Cadet de Gaissecourt, the best coffee is that which is made by the mixture in equal parts of the ground Bourbon coffee and Martinico.

2ndly. Its action upon man in health. "This liquor, taken warm," says Mons. A. Richard, "is an energetic stimulant; it has all the advantages of spiritous drinks, without any of their bad results; that is to say, that it produces neither drunkenness nor all the accidents that accompany it. It excites in the stomach a feeling of comfort, a stimulation that is not slow in extending through all the economy. The movements of the heart and

the blood vessels are more developed and more frequent; the muscular contractions easier." Dr. Colet disapproves of the use of coffee taken in great quantity for too long a time. "To the gastralgia that it occasions, is united, (he says) after a variable space of time, a kind of shivering, a trembling in the left side of the breast, an uncomfortable stitch in front of this region, accompanied by pain in breathing, and in addition a general excitement, the characteristics of which are analogous to those of incipient intoxication. If, in this state, the use of coffee is persevered in, greater uneasiness follows, the hands and the feet are seized with an icy coldness, and with a cold sweat. There is besides a feeling of uncomfortable coldness in the back part of the head. Sometimes these symptoms become more serious, and then follow shiverings of that part of the skin covered with hair, and intense head ache and vertigos; the step becomes tottering, the pulse feeble and irregular, suffocation is imminent, and is accompanied with insensibility and convulsions. The pain of the stomach gives place to violent spasms, the movements of the heart become painful and like strong palpitations: sometimes, on the contrary, the

action of this organ relaxes to the point of occasioning fainting."

"I have seen," says Dr. Cottereau, "some young persons who had taken excessive doses of coffee to excite them to labour, fall into a state of stupidity, lose their appetite, and grow thin in an astonishing manner."

3rdly. Its effect upon man in sickness. Coffee is reputed the antidote *par excellence* against fulness of the head and the megrims. This virtue, which the vulgar ascribe to it, is not exaggerated so far as relates to complaints of the head engendered by debility of the stomach or intestines. When, on the contrary, there is over excitement in these organs, coffee is rather injurious. It is also salutary in cases of drunkenness that completely prostrates the individual.—Mons. J. Roques forbids it in inflammatory diseases, and proves its efficacy against poisonings by opium, herbane, belladona, the prickly apple, and certain mushrooms, and in cases of asphyxia caused by charcoal lit in a close room. Mons. A. Richard forbids it to persons affected with the piles, and Tissot to those affected with chronic diseases. A physician of Paris, Mons. Ratier,

alleges, according to the experiment that he performed upon himself, that opium and coffee taken together each exert separately the action that is proper to it. However that may be, it is well known that the effects of opium are successfully resisted by a strong infusion of pure coffee. Mons. Orfila says, in his *Treatise on Toxicology*, that coffee diminishes the effects of opium without decomposing it in the stomach. Ringle, in a letter that he wrote to Percival, informed him that the attacks of periodical asthma yielded to an ounce of the decoction of coffee in a glass of water, repeated every quarter or half hour. Dr. Floger, who was subject to this malady, found himself quite well by this means at the close of his days. The Egyptian women employ it to regulate their courses. Mons. J. Roques recommends it to women who are out of order, or affected with the green sickness; to the gouty, to the inhabitants of moist countries, and to those exposed to the epidemic diseases which prevail in marshy places. Coffee often preserves from attacks of apoplexy, individuals who are constitutionally predisposed to this disease. Mallebranche relates, in the *Memoires of the Academy of Sciences*

for the year 1702, the history of an apoplectic who owed his preservation to clysters composed of a strong decoction of coffee. Mons. Martin Solon, employs it with success in typhoid fever, to dispel the drowsiness, the prostration, and the stupor, (in doses of from 8 to 15 *grammes** in 500 *grammes* of water, at the moment when the febrile action is least intense.) Musgrave gives it as a very good sedative in the attacks of asthma that come unexpectedly in gouty persons.—Bradley considers it as an excellent preservative against contagious diseases, and even against the plague. In 1805, a time when dangerous fevers prevailed at Bordeaux, Dr. Coutanceau witnessed the increase perceptibly diminished by the use of coffee. Professer Gindel, who made trial of it at the clinical establishment of the Imperial University of Dorpot, in Russia, considers coffee equal to bark in intermittent fevers. Of eighty whom he thus treated, a few only withstood it: two ounces of powder are enough. Lastly, it is with coffee that Lanjone checked the most obstinate diarrhœa.

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* About nineteen grains.

In *the Dictionary of Medical Sciences*, mention is made of a lady, the mother of ten children, who lost nine of them by a colliquative diarrhœa. The tenth was about to fall a victim to the same complaint, bark passed from it unaltered, and all remedies were powerless, when coffee restored the child to the most perfect health. At first a little gum adragante, or extract of tourmentille, was added; then for nine weeks they gave it pure.

4thly. Its effects upon different temperaments. The use of coffee agrees perfectly well with certain temperaments, as it is injurious to others. There are persons who are not only well with it, but who cannot deprive themselves of it. There are some, on the contrary, in whom it occasions obvious derangements. In addition to their sleep's being disturbed, they are a prey to a general agitation, that is only allayed after a greater or less lapse of time; but if sometimes, by the effect of habit, the temperament gets the better of it, there are also some constitutions that experience violent attacks from it. We read in Mons. Londe's *Elements of Hygiene*, "The effects of coffee as a digestive are gene-

rally known. Owing to the iron that it contains in a pretty perceptible quantity, it might be advantageously given in small doses to pallid persons and lymphatics, in whom the formation of blood is ill performed and sluggish. It is given to overcome the overwhelming action of too high a temperature: a regulation of the Royal Navy, prescribing the distribution of it to the crew in the morning as soon as the vessel has passed the tropic. Moreover, its use in irritable persons occasions paleness, increases leanness, and hastens exhaustion. In weak persons, to whom it is prejudicial, it increases feebleness, renders them liable to be easily affected by morbific influences, and gives rise to agitations of the stomach. To these symptoms is sometimes added a sensation of swelling in the epigastric and abdominal region, suffocations, gastralgias and melancholy, and among women almost always running from the genital organs."

Dr. Pomme says that he attended a young nun, tormented by violent stomach-aches, faintings and spasms, from the excessive use of coffee.—Mons. J. Roques forbids it to persons endowed with a very decided nervous temperament, and of an irritable character; Mons.

Richard gives the same advice to nervous persons.

According to these counsels, given by men of skill, it is easy to comprehend that coffee is sometimes more injurious than the great consumption of it would seem to indicate. Thus, how many persons are there who would know the cause of a disease not understood, and would be less disordered if they thoroughly knew the effects of this liquor, and the circumstances in which it cannot fail to be injurious.

Less severe than the founder of homœopathy, Mons. Hanneman, who compares it to the most violent poisons, we do not wish to anathematize, as he does, the use of coffee, and to prohibit it to every one without exception. Not to draw down upon our head hatred the more intense, inasmuch as it would be dictated by interest, and in conformity with the masters of science, we proclaim that coffee is beneficial to persons of a lymphatic or bilious temperament, provided it is not taken to excess. Sanguine or nervous persons, but who are not very decidedly so, may also use it, with more reserve, however, than the others. But in despite of all present and future venders of the

so much vaunted Mocha, were they even to sue us for defamation, we proclaim their liquor eminently injurious, especially when taken in too great quantity, and for too long a time, to all those who have received from nature a decidedly nervous or sanguine temperament; to young women of delicate constitutions and of a thin body, in whom the nervous system is greatly developed, and above all, to irritable, puling children, who offer less resistance to the sad consequences of such an abuse.

5thly. Its INFLUENCE UPON THE MORAL NATURE. The action of coffee upon the cerebral organ is not less than upon the other organs. *Under its influence, the moral and intellectual faculties are more lively and more active*, says Mons. Richard. The fancy is exalted, the imagination is excited. Hence that inclination, that imperious necessity even, that is felt in persons of an indolent temperament, for lashing the blood and exciting the lazy nerves to predispose the brain, the instrument of the soul, for labour and invention. Coffee is very useful to men of letters; so they make great use of it. They are often indebt-

ed to it for that brilliant eloquence that is the ornament of their style.* It is to its influence that the orator sometimes owes his fine improvisations. Look at the celebrated Mirabeau's harangues, full of fire: by day in the tribune he hurls against his adversaries the thundering diatribes that he has prepared by night in cups of coffee, whose strength he increased a hundred fold by alcohol and rum.

His antagonist, the Abbe Maury, was equally friendly to the intellectual drink.† It is with coffee that the bureaucrate dissipates uneasiness of body and languor of mind. It is to the clashing of half cups that the working populace refreshes itself in low smoky halls from the sweats of the day, and conspires against kings.

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* Without coffee I have only the soul of an oyster," wrote an authoress, who, according to J. J. Rousseau, united the pen of Voltaire to the mind of Leibnitz.

† It is not without reason (says Cabanis) that some writers have called coffee *an intellectual drink*. The use that artists, men of letters, and men of learning make of it, is only established after multiplied observations, and very certain proofs.

But, unfortunately, it is not without great prejudice to mind and body that man procures such over-excitements. After them come prostration, sadness, and exhaustion of the moral and physical forces; the mind becomes enervated, the body languishes. To a rich imagination succeeds a penury of ideas; and if the consumer does not stop, genius will soon give place to stupidity.

Yet, we hasten to say it, we have not often to deplore such sad consequences. Men of letters are not always the victims of the spirit of ambition that urges them to ascend as high as possible, to the injury of their health and their life. The counsels of friendship, and the precepts of science, cannot be wanting to those whose works do honour to their country. Besides, all are not of a temperament that excludes the use of a drink, that, in addition to being agreeable to them, may also be useful. Voltaire and Fontanelle took much coffee, and yet they died very old. According to Zimmerman, coffee is less injurious in beer drinking countries. I have seen, says he, at Gottingen, many Germans swallow twenty cups of coffee without suffering any thing from it.

DIFFERENT CHANGES PRODUCED IN COFFEE. That our subject may be thoroughly treated, we cannot conclude without mentioning, that coffee taken mixed with milk, or even in the shape of *café-au-lait*, as it is called, is a bad nourishment, especially when used for a long time. This kind of breakfast, which they call highly agreeable and very nourishing, is bilious, and ends by cloying the stomach; there are even persons whose digestive organs it so greatly debilitates, that it gives them fluxes, which only cease with the use of such sustenance. Sanguine and irritable temperaments may indulge in it oftener than bilious and lymphatic constitutions.

PURE MILK.—As to the action of milk upon the health and the moral nature, hear what the celebrated Cabanis has said of it:

"Milk, which I consider as food, and not as a drink, may produce very different effects, according to the primitive temperament and the accidental state in which the animal economy may be at the moment when it is used. In the changes that milk itself undergoes by artificial preparations, it becomes capable of

acting in a manner that does not at all accord with its own nature. Fresh and pure milk acts upon the whole system as a direct, and not-stupifying sedative; it moderates the circulation of the humours; it imparts to the organs a pecular calm; it disposes the organs of motion to repose. Through its influence the ideas seem to become clearer, but they have little activity: the inclinations are peaceful and gentle, but in general they want energy; and though this easy aliment keeps up a sufficient amount of strength, it makes all the indolent tastes predominate: one thinks little, desires little, does little.

Such are the facts that persons have observed in themselves, who, on account of ill health have passed at once from a more stimulating kind of life to pure milk diet, and who, consequently, have been the better able to recognise the real influence of the latter kind of food in this sudden and total change. It may be believed that these effects depend immediately upon the feebleness or obscurity of the impressions that the milk produces upon the stomach, and on the diminished action of these viscera, and the whole digestive system; they result, perhaps, though indirectly, and by a

series of more remote impressions, from the emulsive nature of this food: for all kinds of milk contain, in different proportions, oil, simple mucilage, and gluten feebly animalized, sufficiently combined to hinder their undergoing any special degeneration all at once, but not sufficiently so to make them susceptible to the degeneration peculiar to more complete combinations of the same principles.

"But in certain temperaments and certain states of disease, the use of milk produces particular effects, very different from those which we have just recognised in it in general. Sometimes it causes melancholy affections, which, when they assume a chronic character, soon bring in their train all the disorders of the imagination, and all the aberrations of the will that we have so often said were peculiar to them. Still oftener it is followed by very fatal putrescent indigestions, or bilious degenerations, obstructions in the liver, the spleen, and the whole hypochondriac system, which in time produce great injury to many important functions.

"It is not my business to specify (continues Cabanis in his Memoire *on the influence of Regime upon the moral habits*,) all the differ-

ent effects of fresh and pure milk, nor the circumstances in which each of these effects may take place; I will content myself with observing that this food, which the common practice makes the principal remedy in slight diseases of the chest, often becomes very injurious in them, and that it almost always requires, even when its use may be advantageous, great circumspection in the choice of the time and manner of employing it. I will add, that, though easily digested, milk is better suited, in general, to persons who take much exercise, than to those who lead a sedentary life. It may, besides, become a real poison to bilious subjects, and those whose hypochondres are habitually filled with wind; and it is rarely suited to men whose moral nature is very active, and all whose vital functions are found united with continued and lively sensations. Lastly, milk, like the farinaceous substances, supplies copious and invigorating nourishment; like them, it imparts sluggishness to the muscular movements, whose organic force it appeared suited to preserve, but it does not blunt the sensibility in so thorough and lasting a way; it only moderates its action and con-

fines itself to lowering the tone of the sensitive system."

COFFEE OF CHICK-PEAS AND OF SUCCORY have been in fashion for some years. The first is refreshing and suited to sanguine temperaments; the second is depurative, and agrees with the bilious; taken fasting it promotes appetite, and taken after meals it facilitates digestion without causing any excitement.

To say every thing finally respecting coffee, here is the process that a German physician, Mr. Giacomini, employs to purge children, without their knowing it. He infuses from eight to ten *grammes* of senna in half a cup of coffee. Thus prepared, this purgative substance loses its bad taste, and is no less efficacious. The secret is not to be despised.

Grown persons may purge themselves by the same means; only doubling the dose of senna.

CHAPTER II.

OF TEA.

THIS kind of drink, which some connoisseurs take in great bowls on the eve of a feast day, in order to be the better able to do it honour, and which others, on the contrary, employ afterwards to free themselves from an overplus of nourishment, whose digestion is too tedious, has virtues proclaimed by some, and denied by others. These prefer coffee to it, those extol it as the liquid *par excellence*. "This useless leaf, (says Mons. Merat) as unfit for nourishment as to satisfy any real enjoyment, has not the less changed the customs of nations, modified the relations of peoples, and even overturned empires: the independence of North America dates from an impost that the mother country wished to lay upon tea. We find the explanation of this singularity, at least for our Europe, when we reflect that tea assists man in supporting his greatest enemy, *ennui*, and in diminishing the

most troublesome of his labours, the spending of time."

Tea is a shrub of middling height; it is cultivated in Japan, China, India and Brazil. The leaves alone are used. The word tea comes from *theh*, a provincial word of Fokien. The Mandarins call it *tcha;* the Japanese, *tsjaa.*

Upon being analysed, these leaves contain gum, tannin, albumen, woody substances, salts, a little essential oil, and a resin soluble in alcohol, with a very agreeable odour of tea. It is impossible to imagine the great quantity of tea that has been consumed during a great length of time. Here is a report that we have seen in a scientific work:

Between 1772 and 1780, seventy-nine English vessels brought 50,759,451 pounds of tea: one hundred and seven vessels of different European nations, brought 118,783,811 pounds of it. Thus in the space of eight years 169,543,262 pounds of tea have been brought by the vessels of different peoples. In this account is not comprised what has been smuggled, and what has been brought into Russia by land. In estimating the price of each pound of tea at six francs, which is the

lowest price, it is about a milliard for the eight years, that is to say, about 125 millions per annum.—In 1805, more than seven hundred thousand weight entered into France alone, according to a return of the custom-houses. It is not yet a century since the English Company sold annually not more than fifty thousand weight of it. Now the sales of this single Company amount to twenty millions of pounds weight.

Teas of good quality are preserved for a long time in tight and opaque vessels. The Chinese do not use it until a year after its preparation.

If we may believe certain chroniclers, it was Duhalde and Lecomte, Missionaries to China, who taught us the manner of using tea leaves.

The most esteemed present that the Chinese can make each other, is tea brought from Europe. This is explained by the improvement that it experiences in the voyage. Father Benoit, Missionary to Pekin, in boasting to Delatour of the advantage of the transportation of tea into Europe, said to him: "You do not know how much the climate changes things: rhubarb, which is corrosive at Pekin,

and which the physicians dare not use without care, is in France a mild purgative."

ACTION OF TEA UPON MAN IN HEALTH. According to Mons. Martin-Solon, the action of tea varies according to the strength of the infusion and the kind of leaves that are used in equal doses; the *green* produces more marked effects than the *black:* the latter, more deprived of its sharp and poisonous principles, and less irritating, is more esteemed by the people of the North. The green, endowed with a greater energy, is preferred in France, England and Holland. If we may confide in what the Chinese say, there is no virtue that we can deny to tea. It is a real panacea for this people: according to them it is a cordial *par excellence*, it removes head-aches, prevents vertigoes, strengthens the limbs, diffuses a gentle heat throughout the body, refreshes the spirits, removes vapours and cephalgic complaints, cures the dropsy, colds, catarrh, diseases of the liver and spleen, the cholic, etc; but there is, says Mr. Murray, more boldness than truth in these assertions.

In the time of Boerhaave, Holland resounded with very animated discussions, occasioned

by tea. Crandoen and Bontckoe, who had much extolled it, were accused of having too much consulted, in their writings, the interests of the India Company. Boerhaave combated these two physicians, and compelled them to restrain the use of tea within wise limits. Zimmerman recommends this drink to those who are obliged to expose themselves to the cold, and who then remain within doors, all benumbed. They thus prevent the bad effects of checked perspiration, and soon feel the oppression and languor that result from it to cease. According to the same author, the use of tea is more injurious than that of coffee; its moderate use removes the heaviness and affections of the head, excites the action of the stomach, and sharpens the appetite. "I take it (says he) twice a day, but only two cups at a time; in this way, it does not inconvenience me. Two cups more weaken me, excite in me hypochondriac movements, tremblings, suffocations, and a certain timidity that is insupportable to me. I see the same thing happen to those who are well, but of feeble constitutions, when they take more of it than usual."

EFFECTS OF TEA IN CERTAIN DISEASES. According to Dr. Begin, tea is used in cases where it is necessary to facilitate digestion, and when this function is deranged. By its exciting action it frees the intestines from the overcharge of food that they have received. Tea excites perspiration. It has been recommended in attacks of some diseases of the skin, and in chronic rheumatism, doubtless, on account of its diaphoretic virtue. Those who have supposed it to possess an astringent property, as Mons. Geoffroy, have recommended it in fluxes and the dysentery. For the same reason it has been proposed in decoction instead of infusion, because it is then more active against poisoning by arsenic, as bark and nut-galls are given. Mr. Percival recommends it as calming nervous affections; but it may be easily understood that it would be injurious in those arising from excitement, and salutary only in those proceeding from debility. Tea has been considered as able to prevent the stone, and to dissolve it if it exists. Then-Rhyne affirms that he has never seen calculi in the bladder at Japan; Koenfer says that he has never observed the stone, nor even the

gravel among tea-drinkers; but facts to the contrary are too numerous among the English to admit of this opinion. Lastly, tea has been regarded as a good remedy against weak sight and nervous affections of the eyes. Haller says that it promotes perspiration, prevents sleep, and lightens the overcharged stomach.

Its influence on the moral nature. Mons. Martin-Solon says that tea excites the nervous system in a remarkable manner, at least in most subjects; that it increases the activity of the mind, disposes it to gaiety, drives away sleep, and produces in all the members a kind of agitation that demands motion. The author who has put forth such an opinion, has doubtless based it upon facts; so let us accord it all the respect that it deserves. But calling to mind, as to this subject, what Zimmerman has said, we are led to believe that Mons. Martin-Solon meant to speak of cases in which tea was taken in large quantities, or by very irritable persons.

Mons. Lémery thus expresses himself: "Tea taken in moderate quantity, like most of the exciting, aromatic and slightly poisonous substances, produces a momentary excite-

ment in the ideas, augments the mental powers, gives activity and development to thought, and produces hilarity and contentment." We might here reproduce our first objection, and even fortify it by new commentaries; but we confine ourselves, not to prolong the matter too much, to the reflection of Mons. Merát, who says that Mons. Lémery, in his *Treatise on Food*, cries up tea like a veritable Mandarin. We have no reason to conclude that the mind of man derives great benefit from the use of tea, and we are tempted to believe that when Haller wrote *that tea gave a certain poetic fire*, he thought that he was at the article Mocha, or that the pen turned in his fingers.—Coffee, beyond dispute, exalts the imagination and warms the brain, but tea seems to us altogether more suited to warm the stomach and promote digestion. We have read in *the Persian Letters* that coffee was formerly very much in fashion at Paris, by this token, that they even served it in all the houses where persons went to pass the evening, and that people, thanks to the influence of this liquor, went away convinced that they had much more wit than when they came. We are not aware that tea ever received such honours.

Formerly, as at present, it was given as a digestive after meals, when they supposed the digestive organs too much distended, but never to give a certain gaiety to the thoughts, nor to give wit, nay, not even the pretence of having it.

BAD RESULTS OF THE USE OF TEA. To become convinced that this drink is more injurious than useful, and that if it has some advantages even disputed, it has some injurious results that are undisputed, it will suffice us to place before the reader the following extracts from the *Great Dictionary of the Medical Sciences*.

"In too large doses, tea agitates the nerves, hastens the circulation, increases the heat of the body, occasions wakefulness, convulsive movements of the members, a kind of intoxication, etc. It is in one word an excitant that should not be abused. Suited as it may be to those who are too fat, the lymphatic, those of a dull and heavy constitution, gross eaters, those who feed on fat, oily and slimy food, it is as injurious to those of a contrary condition, especially if they use it too frequently, and take it too strong. It has been remarked in

China, that the great tea-drinkers are thin and weak, that their complexion is leaden, their teeth black, and that they are subject to the diabetes. Smith asserts that the abuse of tea ends by destroying the sensibility of the nerves. Some authors have attributed the injurious effects of tea to the abundance of warm water in the infusions that oppresses the stomach. Cullen refutes this opinion, and thinks that they should be ascribed to the leaf itself."

After this, it is not strange that the French abandon so willingly the use of tea to the English. But in case one should think fit to have recourse to one or two cups of tea to remedy an indigestion, a very common thing in England, we advise him, like Messrs. Merat and Delens, to take tea in the proportion of four *grammes* to the *demi-litre* of boiling water.

CHAPTER III.

OF CHOCOLATE.

THIS alimentary paste, which some persons in good health honour with their partiality, and which the physicians recommend to certain sick persons, deserves to be well known, that all may know what temperaments it suits, and in what circumstances it may be injurious.

History. The word chocolate comes from two Mexican words; the first, *choco*, means noise; the second, *latté*, or *lath*, means water, because in preparing it, the people made it froth in warm water. The Spaniards found it in use in 1520.

Composition. Chocolate is made with the roasted almonds of cacao, sugar, and some aromatic substance. The Mexicans add to it ginger, pimento and cloves, which make it sharp and heating. Vanilla and cinnamon render its taste more agreeable, and its diges-

tion easier. To twenty pounds of the paste we may put three ounces of vanilla and two of cinnamon. These aromatics are ground with the sugar that is to enter into the paste. In Spain they prepare a common chocolate with the bulb of the root of the *arachis hypogo*, or earth pistachio, and with the meal of Indian corn; in it the *storax calamite* supplies the place of the vanilla. Such a chocolate must be very heavy upon the stomach, and ill-tasted. Mons. Cadet de Gassicourt wrote in the *Dictionary of Medical Sciences*, in 1813, "An analogous preparation is sold at Paris under the name of analeptic chocolate, or sago; it is the ordinary chocolate, into which has been put, not sago, which would make it too dear, but the *fecula* of potatoes. Quackery, which corrupts our food as well as our medicines, has also contrived to fabricate indiginous chocolate, without cacao or sugar, from the sugar cane. This composition, which is kept secret, seems to have for its basis roasted almonds, rendered more greasy by butter, and sweetened with grape sugar." The degree of roasting (says Mons. Virey,) which the paste undergoes, modifies the qualities of the chocolate. In Italy, the roasting is carried pretty far, which

makes the chocolate more bitter, and more aromatic. In Spain they barely dry the cacao; the chocolate has less bitterness, and is more greasy. In France, the chocolates hold the middle point between these two qualities.—"Good chocolate, (says Mons. Fabre in his *Dictionary of Medicine*, is of a deep reddish colour, smooth on the surface, not presenting a gravelly appearance on being broken, and easily dissolving in the mouth, producing therein a feeling of freshness; it is soluble in water, which it only moderately thickens, and this solution is overcharged with oily little drops." The pharmacopæia of Messrs. Henri and Guibourt informs us that chocolate, and especially that of the first quality, does not keep long. A little while after it is made the surface grows dull, and is covered with an efflorescence of cacao-butter; but this slight alteration should not cause it to be rejected.

MEANS OF DISCOVERING ADULTERATIONS. "Some greedy merchants (say Messrs. Bussy and Boutron-Charlard) add to chocolate a greater or less quantity of rice-flour, or the fecula of potatoes. Chocolates that have undergone this fraud, have the peculiarity of

thickening water to such a degree, that on growing cold the liquid finally turns into a jelly." To discover whether the adulteration has been made with flour or starch, the following is the method pointed out by Mons. Orfila: a portion of the chocolate is boiled for eight or ten minutes with six or seven parts of distilled water, in order to dissolve the fecula, forming part of the flour; the liquid is discoloured by means of a sufficient quantity of concentrated chlorine, a yellowish precipitate is formed; it is allowed to rest and is filtered. The liquor, thus clarified, is of a yellowish colour and contains the fecula; it becomes of a very beautiful blue by the addition of one or two drops of alcoholic tincture of iodine. Chocolate, unmixed with flour, treated in the same way produces a yellowish liquid, which turns to brown on the addition of the tincture of iodine.

Effects of chocolate. This paste is very nourishing. Strong stomachs always bear it, but there are some that do not digest it without difficulty. Thence proceeds the custom of drinking a glass of water after it, which facilitates its digestion. Salutary to

very many persons, it is injurious to others.—"Chocolate (says Tourville, in his *Treatise of Hygiene*) is suited, as a restorative food, to the aged, and to weak and worn out persons, but is, on the contrary, generally injurious to young people as well as those of bilious constitutions."

Cardinal Richelieu, says Behrens, owed to chocolate the restoration of his health, that had been greatly impaired by the hypochondria, that had resisted all medical means.

Linneus relates that a young man of letters after having been tormented for nine years by the piles to such a degree that he no longer had any hope of being delivered, except by death, was cured of them by chocolate, taken liquid, for a year.

The illustrious professor of Upsal says that he knew many women, who being affected by piles, owing to a sedentary life, and the immoderate use of coffee, were cured of them by chocolate.

Different kinds of chocolate. Some sick persons in a state of convalescence from protracted diseases feel very well with chocolate, when their stomach could not digest fat broths or animal food. With the view of re-

storing the strength, and giving tone to the organs, physicians recommend the chocolate *au lichen*, or *au salep*, etc. To make the first, this is the formula of the codex: Take Carracas cacao, and cacao of the Islands, of each one thousand *grammes;* powdered sugar, eighteen hundred and twenty *grammes;* jelly of Iceland moss, dried and deprived of its bitterness by two or three previous infusions, seven hundred *grammes*. They proceed, as for plain chocolate, by introducing the dry moss-jelly into the paste at the same time as the sugar. To make the chocolate *au salep*, they prepare it by incorporating exactly sixteen *grammes* of powdered salep into five hundred *grammes* of simple chocolate, previously stiffened in a warm mortar, and then by putting it into a mould in the usual manner.—In the same way chocolate with tapioca, or any other fecula, is prepared. The ferruginous chocolate, so beneficial to women who are out of order, or have the green sickness, is prepared by adding to the paste of chocolate iron in the state of filings, oxide or carbonate. The simplest method, and one pretty much in use, for having ferruginous chocolate in families, consists in dissolving good chocolate used in health in iron water,

instead of making it in common water. The pastilles of chocolate are only vanilla chocolate divided before the paste grows cold, and rolled into that form.

Effects upon the moral nature. The cerebral organ of man is influenced by the use of chocolate only in a secondary manner. This paste, not acting upon the nervous system, cannot react upon the brain when the stomach digests it without difficulty; it performs its functions as a tonic and nourishing aliment, without the brain's feeling any effects from it. But when it is given at an improper time and deposited in a digestive tube too weak to elaborate it, it produces the same effects in the head as all alimentary substances of difficult digestion, that is to say, it causes heaviness in the head and dimness of sight; it is not amidst such derangements that one can devote himself to intellectual labours requiring great application of mind, and perfect freedom of all the organs.

"Chocolate (says Zimmerman) has the injurious results of an excessive nourishment for men of letters leading a sedentary life. Indigestible by valetudinary and feeble persons,

it often gives a false appetite rather than a true and natural, it *stupifies* me whenever I take it. Useful in cases of weakness, it is injurious when the viscera of the lower belly are threatened or attacked by obstructions, or even when too much blood seems to determine to the head." If the Spaniards are such great advocates of chocolate, and are so well with the use of it, it is because, first, they only use it of very good quality, and if, among them, the manufacturers make it of very inferior quality, they sell it only to the lower classes, and are so extremely philanthropic as to send it into France or elsewhere, persuaded that it will be considered excellent as long as it bears the stamp of Spanish make. The second reason, and which is a triumphant answer to those who might object that in France we may also procure very good chocolate, is, that the Spaniards take it in small quantities in a little cup not larger than an egg-shell, and that we never take less than a great bowl of it, always enough to serve for a breakfast; it may be conceived then, that it is not at all surprising that it produces effects with us quite different from those with the Spaniards, as well upon the physical as the moral condition.

NOTE.

[The following lines were written by Mary Lamb, the sister of the Author of the Essays of Elia.]

THE COFFEE SLIPS.

Whene'er I fragrant coffee drink
I on the generous Frenchman think,
Whose noble perseverance bore
The tree to Martinico's shore.
While yet her colony was new,
Her island products but a few,
Two shoots from off a coffee tree
He carried with him o'er the sea.
Each little tender coffee slip
He waters daily in the ship,
And as he tends his embryo trees,
Feels he is raising midst the seas
Coffee groves, whose ample shade
Shall screen the dark Creolian maid.
But soon, alas! his darling pleasure
In watching this his precious treasure,
Is like to fade—for water fails
On board the ship in which he sails.

Now all the reservoirs are shut,
The crew on short allowance put;
So small a drop is each man's share
Few leavings you may think there are
To water these poor coffee plants;—
But he supplies their gasping wants,
Ev'n from his own dry parched lips,
He spares it for his coffee slips.
Water he gives his nurslings first,
Ere he allays his own deep thirst;
Lest if he first the water sip,
He bear too far his eager lip.
He sees them droop for want of more;—
Yet when they reach the destin'd shore,
With pride the heroic gardener sees
A living sap still in the trees.
The islanders his praise resound;
Coffee plantations rise around,
And Martinico loads her ships
With produce from those dear-sav'd slips.*

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* The name of this man was Desclieux, and the story is to be found in the Abbé Raynal's History of the settlements and trade of the Europeans in the East and West Indies, Book 13.

LBJL